"Time Can Be Rewritten": The Doctor, the Book, and the Database

The long-running BBC television series *Doctor Who* has had strong links with literature since its inception. Indeed, the influence of Poul Anderson, H. G. Wells, C. S. Lewis, Arthur Conan-Doyle, and others has been well-charted by historians of the program.[1] Directing critical attention away from the question of intertextual connections and toward the role that books-as-objects play in the text of the series itself reveals additional fruitful readings. Perhaps surprisingly for a program that devotes a significant amount of its time to the construction of alien and/or future cultures, *Doctor Who* has a remarkable fascination with the printed book. Its central role in *Doctor Who* stories such as "Extremis," "Silence in the Library," and "Forest of the Dead," as well as the smaller but no less meaningful parts books play in "An Unearthly Child," "The Mind Robber," "The Deadly Assassin," and "The Angels Take Manhattan," is particularly marked in the era of the e-book and the tablet. As these stories show, in the *Doctor Who* universe, books are more than repositories of knowledge or sources of entertainment. Instead, they occupy an area of unsettling ambiguity. Books almost always signal that something odd or threatening is happening or is about to happen. Often, books themselves are the cause of such events, although they are rarely presented as unequivocally monstrous or evil. Rather, and in accordance with the key aesthetic of the program, books in *Doctor Who* are uncanny: they represent what is comfortable and ordinary while at the same time alluding to a disturbing otherness.[2] In *Doctor Who* the disturbing other of the book is the database, a digital archive designed to be added to, rewritten, searched or otherwise interacted with. The history of books in *Doctor Who* is, then, the history of a haunting: of the book by the database, and of the database by the book.

Digital Hauntings

The uncanny database-like nature of the book in *Doctor Who* is made plain just over four minutes into "An Unearthly Child" (1963), the very first episode of this more than fifty-year-long unfolding text. In a 1960s classroom two teachers, Barbara Wright and Ian Chesterton, discuss their new pupil Susan Foreman, a strange young woman with knowledge beyond her years but a bizarre unfamiliarity with some commonplace facts:

> BARBARA: I'm lending her a book on the French Revolution.
>
> IAN: What's she going to do, rewrite it?

At the end of the following scene, Ian's jocular fear has been realized as Susan, alone in a classroom, reads briefly from a large history book before remarking "that's not right." In measuring her own knowledge against that of a book, and finding the latter wanting, Susan clearly indicates her unusual qualities. The viewer soon learns, of course, that Susan's grandfather is the Doctor, and thus Susan's superior knowledge of the French Revolution comes from having visited that period herself (notwithstanding a second visit in the 1964 story "The Reign of Terror"). Susan is clearly odd, but it is notable that, before we have even met the Doctor or seen inside the TARDIS, that oddness is indicated most strongly to the viewer through her strange interaction with a book. Susan's words, muttered half to herself and half to the viewer, are clearly not the result of youthful bravado but of real knowledge, and the threat implicit in Ian's joke—that Susan really is capable of rewriting and thus correcting this history book—must have been especially thrilling for a young early-1960s audience brought up in thrall to the authority of the school book and school teacher. The direction and soundtrack emphasize this weird moment, as Susan's handling and reading of the book are accompanied by an ominous

score for oboe and harp, and the scene ends with a close-up not of Susan but of the book's cover, plain except for the words "The French Revolution." David Butler has described the unsettling nature of the ambiguous point-of-view shot that opens this episode, and the closing shot of this fourth scene has a similar disturbing effect, albeit at a smaller magnitude (24-25). The viewer does not yet understand what they are watching, and the ambiguous status of Susan's relationship to the book contributes to this uncertainty. Ultimately, this moment demonstrates that in *Doctor Who* books are not quite what they seem; no longer stable and complete, books remain porous and open to revision or addition in the manner of a database. Here is the origin of the discourse of re-writing history, and indeed of re-writing the past itself, that from time to time looms large over the program.

In "The Mind Robber" (1968), books have become even more interactive: they construct both the world in which the Second Doctor and his companions, Jamie and Zoe, find themselves and the danger that that world poses.[3] In this serial, the TARDIS has been transported into a dimension known as the Land of Fiction, where characters from various popular narratives exist on a physical plane.[4] Thus, among others, the viewer encounters Lemuel Gulliver, who converses with the Doctor in quotations or paraphrases taken from *Gulliver's Travels*; as the Doctor observes, "he can only speak the words that Dean Swift gave him to say." Not only do characters from books appear in the Land of Fiction, but books themselves also take on a strange new physical form. After wandering through what look like alien trees for the first fifteen minutes or so of the serial's episode two, the Doctor's party discovers that they are, in fact, lost in a dense "forest of words." They are crossing an enormous page, and what they took for trees are actually oversized letters. Intercut with the forest scenes, a mysterious figure (later revealed as the Master of the Land of Fiction) repeatedly instructs what seem to be robotic minions to

locate the Doctor: "Find him. Search. Search!" The forest itself contains all manner of threats drawn from fiction, including a homicidal unicorn and a platoon of tin soldiers, and the Doctor must also reanimate a frozen and faceless Jamie by identifying his features from a jigsaw-like selection of eyes, noses, and mouths. The Doctor chooses poorly, however, and Jamie wears the wrong face for the rest of the episode.[5] Even more alarmingly, the memorable cliff-hanger to episode four sees Jamie and Zoe swallowed up by a huge book with the words "*Un Renard Pris au Piege*" ("A Fox Caught in a Trap") visible on its pages. The dialogue accompanying the reprise of this scene at the beginning of episode five indicates just how wary the time travelers have become of printed matter:

JAMIE: It's a book Zoe!

ZOE: Oh Jamie, no!

The Doctor himself ultimately faces the dual threat of becoming character and author, when the Master of the Land of Fiction attempts to trap the Doctor into replacing him at the center of the domain's fictional economy.

Labyrinthine, searchable, and dangerously seductive, the Land of Fiction can be understood as a database writ large. Here readers can literally enter books, which can be scoured for information by automatic means, such as the master's automatons. Once retrieved, that information can be recombined in novel ways in order to produce new information and situations, as in the Doctor's conversations with Gulliver and the new face worn by Jamie.[6] Most worrisome of all, the uncanny fluidity of the book-as-database can entrap those who seek to control it, as if dragged under by the swift and unpredictable current of information. James Chapman suggests there are at least three ways of reading the inventiveness of "The Mind Robber:" as necessitated by various production crises; as the Doctor's dream; and as a drug-

induced "trip" (71). A fourth interpretation might be that the story is a working through of the anxious relationship *Doctor Who* had at that point in its history with its literary precursors, and in particular with the adaptations of classic novels that, as Richard Bignell notes, "formerly occupied the place in the [television] schedule that *Doctor Who* would take" (44). Thus, while it is highly unlikely that the *Doctor Who* production team conceived of "The Mind Robber" as a comment on the *digital* database, it is certainly a story concerned with its analogue alternative: the archive.[7] This becomes particularly clear in light of Jacques Derrida's reminder that "the meaning of 'archive' ... comes to it from the Greek *arkheion*: initially a house ..., the residence of the superior magistrates, the *archons*, those who commanded ... it is at their home ... that official documents are filed" (09-10). Presided over by its master, the Land of Fiction functions as a literary and televisual archive of classic texts from which *Doctor Who* draws and into whose company it seeks to be admitted. Once its comforting stability has been called into question, the book becomes an uncanny database-like space: something permeable, moveable, open to mastery and perversion.[8]

Database Narratives

One further way that "The Mind Robber" can be understood is as a "database narrative." As Marsha Kinder explains, this highly suggestive term

> refers to narratives whose structure exposes or thematises the dual processes of selection and combination that lie at the heart of all stories: the selection of particular data (characters, images, sounds, events) from a series of databases or paradigms, which are then combined to generate specific tales. (6)

By selecting and recombining data from a range of texts contained within the Land of Fiction "database," which in addition to *Gulliver's Travels* includes *The Three Musketeers*, *Rapunzel*, Greek mythology, and indeed "all the masterpieces written by Earthmen since the beginning of time," in Kinder's terms "The Mind Robber" takes its place alongside avant garde works like *La Jetée*, *Last Year at Marienbad*, and *Lost Highway*.[9] Yet in the canon of *Doctor Who*, the ultimate database narrative must surely be "The Deadly Assassin" (1976), a Fourth Doctor serial that takes place on the Doctor's home planet of Gallifrey and features his/her own race, the Time Lords. The story revolves around a literal database known as the Matrix: a living archive composed of the minds of all deceased Time Lords, which are uploaded to it immediately prior to their deaths. The Matrix uses the experience and knowledge drawn from those minds to predict the future—but it is also prone to manipulation. On this particular occasion, an ambitious Time Lord called Goth, who is in league with the Doctor's arch enemy, the Master, has taken over the Matrix. The centerpiece of the four-part serial, taking up parts of episodes two and four, and the majority of episode three, is an extended fight sequence set within the Matrix itself, and in this encounter the database and the book once again reveal their uncanny interconnectedness.

Rather than attempt to offer up a computerized environment of the kind that would be seen six years later in the film *Tron*, the story's writer Robert Holmes returns to the kind of surreal literary-influenced environment encountered in "The Mind Robber." There are some differences between the two serials' presentations. While "The Mind Robber" was, apart from a few brief sequences, recorded in the studio, in "The Deadly Assassin," as Chapman points out, "the 'unreal' dreamscape of the Matrix is shot on location and on film and includes the grittiest and most realistic action scenes ever staged in *Doctor Who*" (111). Despite this difference in scope and style, these scenes draw just as strongly as did the earlier serial on the tropes of

fiction; specifically, the kind of "Boy's Own" adventure stories that were a staple of popular reading in the middle decades of the twentieth century. So within minutes of entering the Matrix the Doctor has encountered a (rubber) crocodile straight out of the Tarzan stories, a masked Samurai warrior, a Great War battlefield and bi-plane, and a malevolent surgeon akin to something from a tale of international espionage. An extended sequence in episode three sees the Doctor being hunted through a jungle environment that could have been conjured up by H. Rider Haggard. These moments, sometimes very brief and shot from unusual angles to emphasize their hallucinatory effect, are never announced as pastiches in the way that Gulliver and Rapunzel are directly referenced in "The Mind Robber," but they can clearly be understood according to Kinder's notion of the database narrative. If the interior of the Matrix is a dreamscape, it is one populated by the unconscious of a mind steeped in adventure books, and the selection and recombination of moments of high tension drawn from these books lends the Matrix its uncanny power.

The Doctor barely escapes from the nightmarish environment of the Matrix, and shortly after doing so he realizes that a catastrophic mismanagement of the archival process was responsible for his experiences. It becomes clear that, in addition to the Matrix, the Time Lords maintain a set of more conventional historical accounts akin to a modern-day database. Despite this, the Time Lords are resolutely future-orientated: they employ the collective knowledge of their dead colleagues in order to predict what is to come, but at the same time they have forgotten how to read the records of the past. As Tat Wood argues, for the Time Lords "knowledge, categorised and filed … is 'dead'" (99). This helps explain why, when the Time Lords access that knowledge, they treat it as zombie-like and untrustworthy, lumbering and base. The danger of this becomes clear when the Doctor asks Coordinator Engin, who seems to be

Gallifrey's chief archivist, to explain if there is anything special about the position of Time Lord President:

> ENGIN: Nothing. He's simply an elected Time Lord, usually from some senior position. He holds the symbols of office, but otherwise he's no different from any other Time Lord.
>
> DOCTOR: Symbols.
>
> E: Yes. Relics from the old time. The Sash of Rassilon. The Key.
>
> D: Tell me about Rassilon.
>
> E: Well, it's all in *The Book of the Old Time*. But there's a modern transgram that's much less difficult.
>
> D: Could we hear that?

No definition of the word "transgram" is given, but it seems reasonable to assume it is a compound of "translation" and "phonogram." Extracts from the transgram, "positively Spenserian in their grave, heightened language," as Piers D. Britton notes, offer an account of the formation of Time Lord society by its founder Rassilon (166). The Doctor asks Engin to explain the significance of a "Great Key" mentioned by the transgram, and he replies, "It's an ebonite rod carried by the President on ceremonial occasions. But its actual function, if it ever had one, is a complete mystery." With his customary clear-sightedness, the Doctor realizes that this key, as well as various other artefacts associated with Rassilon, have an actual rather than a merely symbolic purpose: they can be used to manipulate the nucleus of a black hole from which the Time Lords draw their power. That this comes as a surprise to Engin reveals just how badly the archival process has gone wrong. While the information present in *The Book of the Old Time* has

certainly been preserved, its meaning has not—and the relocation of that information from a book to a "much less difficult" transgram exacerbated this failure.

What exactly makes the transgram less difficult is unclear. If the book has been translated from something like Old High Gallifreyan into a contemporary idiom it may simply be a question of language, but it is nonetheless remarkable that the archivist himself prefers the simpler modern translation. However, given the ease with which the relevant extract is selected and played—Engin simply presses a button to start it—it seems just as likely that the archivist prefers the electronic version of the book because of its accessibility. As was made clear by the Doctor's experiences inside the Matrix, once again danger resides in the selection and recombination of discrete elements of information. *Doctor Who* suggests that, if decontextualized, such material becomes meaningless, surreal, or unreliable. In becoming part of a database, the book is perverted. A further indication of this comes when Cardinal Borusa asks Engin to assist him in covering up what has happened by compiling a new database entry, or "biog data extract," on the Master that "doesn't have to be entirely accurate." "I can have an authentic-seeming data extract ready by morning, Cardinal," replies Engin without compunction. This is Time Lord fake news. After such rewriting of knowledge, what forgiveness?

The modern iteration of *Doctor Who* (2005-present) remains just as interested in the uncanny relationship of the book and the database as the "classic" version of 1963-89, except that now, of course, the program is being produced in a world in which such databases are in routine use. As well as allowing the real world to catch up ever so slightly with the world of the Doctor, the years that separate "The Deadly Assassin" from "Twice Upon a Time" (the most recent episode at time of writing) have also seen an explosion of critical and reference books on *Doctor Who*, both in print and online. As several critics have noted, this seems like evidence of

the program's especially bookish fan base. Miles Booy argues that "literacy had always been a traditional value of the show [and] twenty-first century *Who* retains its commitment to the written word" (187), citing as evidence the Tenth Doctor's comparison of a library to an arsenal in "Tooth and Claw" (2006): "You want weapons? We're in a library. Books! Best weapons in the world." This memorable (and meme-able) moment belies the more complex signification that books tend to take on in the series, especially when they occur in the stories written by Steven Moffat.

Several of Moffat's episodes lend themselves to being understood as database narratives due to the playful manner in which they treat time. By capitalizing upon the paradoxes that could result from time travel, Moffat often tells stories in a nonlinear manner, and to increase the disconcerting effect of nonlinearity, he repeatedly relates these stories to the linear structures represented above all by books. This is nowhere more evident than in Moffat's pairing of River Song—a woman with whom the Doctor shares an atemporal long-term relationship—and the hardbound TARDIS-shaped diary she carries with her. The Doctor and River meet each other in several episodes from 2008 to 2015, but because the Doctor is a time-traveler, the meetings do not occur in chronological order from River's point of view. Thus, the first time the (Tenth) Doctor meets River, in "Silence in the Library" (2008), is the last time *she* meets *him*; that meeting is immediately preceded, for her, by an extended retreat with the (Twelfth) Doctor on the planet Darillium in "The Husbands of River Song" (2015), which happens more than a thousand years later in the Doctor's own timeline. Throughout their relationship, River's diary records and orders these encounters, most of which date from the Doctor's future and are thus forbidden for him to read about. The diary, therefore, becomes an object of uncanny potency: it

is a book that records the future before it occurs, written from the point of view of a woman for whom that future is already past.

Reading River's diary from start to finish would have universe-altering consequences, a problem that Moffat returns to in "The Angels Take Manhattan" (2012); instead, the viewers of *Doctor Who* must be content with the database-narrative version of the story of River and the Doctor, in which they are presented with mis-ordered snippets of a relationship arc waiting to be reassembled in the "correct" order. That act of reassembly can only occur via fan-driven DVD/Blu-ray/download reordering or editing, and this again reveals the doubled life of the book and the database: to "read" the events of River's diary in their proper order, a digital search and a process of selection and recombination must take place. As Paul Booth has argued, this opportunity for recombination allows fans to collate their very own digital archives, "inscribing meaning into each 'entry' as a unique unit of data within a *Doctor Who* 'database'" (207). This is a practical extension of what I have identified elsewhere as a fundamental *Doctor Who* trope: "the way in which the text quotes, displaces or folds itself" (48).

River Song's diary is not the only means by which Moffat uncannily connects the book and the database in "Silence in the Library" and its conclusion, "Forest of the Dead;" indeed, with the possible exception of "Extremis" (2017), this is the story that most depends upon a juxtaposition of the two forms of information storage for its effects. Arriving on a planet-sized library that seems to be completely deserted, apparently the site of a plague that caused thousands of visitors to disappear a century earlier, the Doctor's first action is to rhapsodize over the physical pleasure of reading a printed book. As he tells his companion Donna,

> Books! People never really stop loving books! Fifty-first century, by now you've got holo-vids, direct-to-brain downloads, fiction mist, but you need the smell, the smell of books, Donna. Deep breath.

As far as the Doctor is concerned, the sensual data conveyed by the book-as-object guarantees that "people" (humanoids, as far as we can tell) will always prefer to receive information in a physical, printed, form. However, *Doctor Who* being *Doctor Who*, the celebratory tone of this speech is soon replaced by an invisible but all too physical threat in the shape of the Vashta Nerada, the so-called "piranhas of the air," who it seems were responsible for consuming the readers who disappeared a hundred years earlier, and who have again hatched from the pages of the books shelved in the library in order to consume the flesh of its current visitors. In these circumstances the replacement of a physical text with an electronic one begins to sound appealing and, at the level of plot, the story itself seems to concur. For while books are represented as the titular "forest of the dead"—the spawning grounds of the Vashta Nerada— by contrast the library's digital data core is revealed to have saved the lives of all those thought to have perished in the original Vashta Nerada attack. The data core restores these presumed victims to life at the climax of the story, and also preserves everyone who had appeared to die in the episodes themselves by uploading them to its memory banks.[10] Nonetheless, these episodes are also replete with moments that make the principle of electronic data storage unsettling, particularly when the Doctor and company encounter a "data ghost." When Miss Evangelista, a member of River Song's party, is consumed by the Vashta Nerada, a digital afterimage of her mind is preserved by a neural communications relay that "can hold an impression of a living consciousness for a short time after death."[11] Borrowing and capitalizing upon ideas introduced in "The Deadly Assassin," here Moffat sees the digital preservation of the mind after death for

what it really is: an electronic haunted house. As Alec Charles points out, this is a familiar trope in Moffat's *Doctor Who*: "conversations with the dead are often mediated by electronic technologies ... as though Moffat wishes to emphasize the tendencies of these media ... to allow the dead to speak" (17). Charles is quite correct about this, but electronic media is not the only technology that has this tendency, and it is certainly not the first.

Speaking with the Dead

As Jacques Derrida argues, death is implicit in all written language:

> the absence of the sender, of the receiver [*destinateur*], from the mark that he abandons, which cuts itself off from him and continues to produce effects independently of his presence and of the present actuality of his intentions [*vouloir-dire*], indeed even after his death, his absence ... belongs to the structure of all writing. (5)

This effect is made plain in the use of the episode title "Forest of the Dead" as a synonym for "library," and made literal by the rapacious Vashta Nerada, who represent nothing less than the unleashing of the death principle embedded in written texts. One need only refer to the works of M. R. James to understand that, in the right hands, the age-old technology of the book can be just as uncanny as the innovations of the digital era. Part of that uncanny effect can be attributed to the close relationship that printed books have with human life and temporality. Predicated, as Derrida suggests, upon the death of their authors, books travel through time accreting meanings, both personal and public, that can never be fully appreciated by any one individual. Some can even come to be understood, in Sherry Turkle's terms, as "evocative objects;" "companions to our emotional lives ... underscoring the inseparability of thought and feeling in our relationship

to things" (5). And as Paul Duguid has pointed out, echoing statements made by the Tenth Doctor, the traditional form of the book is appealing because, as an object, it has embedded itself in the way that we live our lives:

> The closed cover, turned page, broken spine, serial form, immutable text, revealing heft, distinctive formats, handy size, and so on offer their own deep-rooted and resilient combination of technology and social process and continue to provide unrivalled signifying matter. (64)

In his work on reading in the electronic age, Andrew Piper goes further by suggesting that the book-as-object is a symbol of humanity itself: "books are essentially vertebral, contributing to our sense of human uniqueness that depends upon bodily uprightness" (2). By contrast, for Piper, "digital texts are more like invertebrates, subject to the laws of horizontal gene transfer and nonlocal regeneration. They, like jellyfish or hydra polyps, always elude our grasp in some fundamental sense" (02-03). This latter principle is perhaps best illustrated by the fate of the virtual version of Miss Evangelista, who has been digitally saved at the moment of her death by the library's wi-fi and imperfectly uploaded to its data-core. There she suffers a striking distortion of her appearance, as the left side of her face has been rendered seemingly boneless, making it look melted. This is re-writing as body horror, and it is explicitly caused by a database error. This might be a clear statement that the stability and linearity offered by the book is preferable to the buggy and perishable database, were it not for the fact that the Doctor, although upright and vertebral, has more in common with Piper's elusive digital text than s/he does with the fixed "human" book. As the Doctor sometimes reminds us, s/he is not human, and his/her capacity to regenerate—for his/her appearance, personality and gender to be rewritten—is perhaps the clearest manner in which s/he eludes the fixity of the book. In "The Name of the

Doctor," it seems that even his/her corpse is digital, or at least electronic, appearing more like an unencrypted data node than a physical body. Two additional Steven Moffat stories suggest that, in *Doctor Who*, the reassuring familiarity of the book is an illusion. When its odd temporal position is revealed through juxtaposition with the database aesthetic evoked by the Doctor and with time travel itself, the supposedly comforting vertebral paper-and-card book has more in common with Piper's monstrous digital text than might at first appear.

When the viewer meets the Eleventh Doctor and his companions Amy and Rory after the opening titles of "The Angels Take Manhattan," they seem uncharacteristically relaxed. The Doctor reads aloud from a book that is gradually revealed to have been written by River Song in 1938. The book's role in the scene is initially presented as social and comforting: it provokes familiar conversation amongst the trio, and when Rory departs to buy coffee, Amy asks the Doctor to "read me a story," echoing the bedtime request for reassurance made by generations of children. But very quickly the book becomes a metaphor for pain and loss. Although it masquerades as fiction, the book from which the Doctor reads is fact, and as such it makes reference to the personal futures of Amy, Rory, the Doctor, and River. Reading ahead and thus out of sync with the present moment is tantamount to creating a fixed point in time—to dooming oneself, in other words, to the fate that one reads in the book. An enigmatic quotation from the book suggests this early in the episode:

> AMY (READS): "'Why do you have to break mine?', I asked the Doctor. He frowned and said 'because Amy read it in a book and now I have no choice'."
>
> DOCTOR: Stop! No! No! Stop! You can't read ahead. You mustn't, and you can't, do that.
>
> A: But we've already been reading it.

D: Just the stuff that's happening now, in parallel with us. That's as far as we go.

A: But it could help us find Rory.

D: And if you read ahead and find that Rory dies? This isn't any old future, Amy, it's ours. Once we know what's coming, it's fixed. I'm going to break something, because you told me that I'm going to do it. No choice now.

A: Time can be rewritten.

D: Not once you've read it.

Only later does it become clear that it is River's wrist that must be broken, and that because he has read the title of the book's final chapter, "Amelia's Last Farewell," the Doctor cannot prevent the imminent and irrevocable departure of his beloved companion. So while River's book provides him with an entry point into the story, it also guarantees that the Doctor cannot achieve the happy ending that he hopes for. The book here fulfils its age-old role as guardian of fixity, but the very fact that the information it contains cannot be altered aligns it once more with death rather than life. The implacable stability of the printed page cannot be disputed, just as time, the Doctor tells Amy, cannot be rewritten "once you've read it."[12] Here Moffat taps into the symbolic power of the book and its associations with, specifically Christian, attitudes to time. As Régis Debray has argued, "the anxious linearity of Christian time accords well with the austere linearity of the written page," and the shockingly linear conclusion of this episode, the way that once its ending has been announced by the last chapter title the story cannot but unfold according to a pre-ordained sequence of events, strongly recalls eschatological thinking (142). This is a very clear picture of the book as anti-database—as a repository of information that cannot be altered or changed—and thus of the dangers that that inflexibility can hold. Crucially, the linearity of the book and time itself is only readable in the context of the Doctor's usual

nonlinear attitude to temporality. For example, when, in "Vincent and the Doctor" (2010), he is forced to wait for Van Gogh to finish a painting, he asks "Is this how time normally passes? Really slowly. In the right order." The Doctor lives his/her life as a database narrative, endlessly selecting (or having the TARDIS select) times and places that require injustice to be rewritten.[13] The linearity of causes and effects, of beginnings and endings, and of what might be called the grammar of time, does not apply to him/her. The Doctor is on the side of the database.

This is illustrated even more clearly in "Extremis" (2017), a deeply unsettling story that brings together the book and the database while foregrounding questions of eschatology. In the present day, the Pope asks the Doctor to investigate a recently translated ancient book called *Veritas* that seems to have prompted the suicide of everyone who has had read it. Before the Doctor has the opportunity to read the book, he learns that a copy has been emailed to members of CERN, the European Organization for Nuclear Research, who also commit mass suicide after reading it. It transpires that the book invites its readers to list a series of random numbers and then turn the page, only to discover that the numbers they listed are written there in the same order. The Doctor finally learns that this is because neither he nor the reality in which he exists are real: both have been created by a race of alien monks who have been practicing conquering the world by running a computer simulation. As the Doctor says,

> If you ask a computer simulated person to generate a random string of numbers, it won't truly be random. And if all the simulated people are part of the same computer program, then they'll all generate the same string.

The episode concludes with the virtual Doctor emailing the real one to warn him of the monks' plans.

The power of this story depends once more upon the uncanny juxtaposition of the book and the database, with the latter again conceived, like the Time Lord Matrix, as a fully immersive virtual world. Playing upon conventions famously employed by Dan Brown in *The Da Vinci Code*, Moffat encourages the viewer to believe this will be a story about the discovery of some sort of pseudo-divine prophecy, only to reveal that what seemed to be a story about books and linearity is in fact one about a database and virtuality. The *Veritas* is almost literally murderous; while not itself sentient or violent, the notion that it induces all of its readers to kill themselves is nevertheless about as far removed from Booy's "commitment to the written word" as possible. The resolution of the story occurs through a shift in paradigms, where the anxious linearity of Christian time as represented by the book is replaced by a digital circularity—an ability to 'try again' at life—that may well be drawn from Indian ideas of reincarnation. Moffat hides this juxtaposition in plain sight by representing his "people of the book" as Catholic priests, and by dressing his "people of the database" in folded, flowing robes akin to those worn by Hindu or Buddhist monks.[14] With the impossibility of rewriting one's personal timeline enshrined in the lore of the *Doctor Who* universe by episodes such as "The Angels Take Manhattan" and "The Waters of Mars" (2009), the only narrative resolution to the problem dramatized in "Extremis," the problem of being trapped inside Plato's cave, is to leave the cave itself and embrace the real. However, in this story, that solution can only be achieved because the real Doctor in the real world is able to access a message sent by the virtual Doctor from the virtual world, a message that is transmitted digitally. Rather than speaking with the dead, an activity made possible by the longevity of the book, the real Doctor is able to speak with the "never-was:" a version of himself created by the uncanny action of the database. It is as if the shadows in Plato's cave were able to tell their observers to turn and face the sun.

This account of the uncanny doubling of the book and the database in *Doctor Who* is far from exhaustive.[15] However, it nevertheless reveals a consistent pattern in *Doctor Who* stories: where there are books, there are often echoes or prefigurations of databases, and the interplay between these two forms of information management creates an uncanny frisson. It is perhaps not surprising that in a program that seeks to find the weird within the familiar, a quest that over the years has presented its viewers with murderous dolls, numerous eerie English villages, and diet pills that convert lost fat into alien children, *Doctor Who* should have used the everyday item of the book as a source of on-screen peril every once in a while. Indeed, the combination of life-affirming and death-confirming impulses present in the book makes it a perfect emblem of the program's aesthetic. Nonetheless, those qualities are thrown into relief by the book's rivalry with digital means of data management that were conceived and entered popular use during the program's lifetime. Despite the innocent terror that such juxtapositions have caused, perhaps the troubling qualities of the books and databases featured in *Doctor Who* have transformed these mundane concepts into fantastical portals or repositories that must be approached with care and wisdom by those initiated into their mysteries. It is certainly the case that fans of *Doctor Who* have made extensive use of both print and electronic media when expressing their fascination with the program, even if while doing so they have, perhaps, cast a nervous glance over their shoulders from time to time.

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[1] See, Britton, Butler, and Chapman.

[2] The uncanny merges two ideas "the one relating to what is familiar and comfortable, the other to what is concealed and kept hidden" (Freud 132).

[3] The phrase "Second Doctor" refers to the second actor to play the role, namely Patrick Troughton. This replacement of lead actor is eventually explained as "regeneration," a physiological capacity that allows the Doctor to change his/her fatally injured or aged body for a new one. Since Time Lords can change gender upon regeneration, I refer to particular incarnations of the Doctor by the gender of the actor who played the role, and use "s/he" when discussing the Doctor's life in general.

[4] During the 1963-89 run, *Doctor Who* was a series of serials; that is, each series or season was made up of serialized narratives lasting two to fourteen episodes, with four episodes being the most common length.

[5] The replacement of Frazer Hines, the actor who played Jamie, with Hamish Wilson was necessitated by Hines contracting chicken pox.

[6] In opposition to Bakula Basu, who argues that the fictions encountered in "The Mind Robber" "don't really exist and one of the ways we can tell that they don't is that they are not permitted to change or create anything new" (173), the combination of pre-existing fictions with *Doctor Who* is itself the generation of something new.

[7] Booth has written persuasively on the *Doctor Who* corpus *as* an archive. My concern in this article, however, is with the representation of repositories of information—books and databases—*in Doctor Who* itself.

[8] Abigail Derecho calls this kind of approach to books "archontic," and it is no coincidence that the heyday of archontic writing, otherwise called fan fiction (a category "The Mind Robber" could certainly fit into), should arise in the current age of the digital database.

[9] Hills discusses the concept of database aesthetics with reference to *Doctor Who*'s fiftieth anniversary celebrations.

[10] While the victims of the original attack have been stored in computer's memory and are able to reassume their corporeal forms, those killed during the events of these episodes (including River Song) live on as data inside a virtual reality akin to heaven.

[11] Other uncanny effects include the inability to tell "real life" from virtual reality, the use of a television and its remote control as means through which a child can communicate with a world of nightmares, and the recreation of the faces of the dead as library information nodes.
[12] This is echoed by the First Doctor, who proclaims "you can't rewrite history! Not one line!" in episode 1 of "The Aztecs" (1964).
[13] In "The Doctor's Wife" it was established that although the TARDIS did not always take the Doctor where he wanted to go, it "always took [him] where [he] needed to go."
[14] In an interview with Benjamin Cook, Moffat notes that until the latest drafts of the scripts, the monks were referred to as "Kung Fu Monks" (even though "they did absolutely no Kung Fu at any point") perhaps indicating a general sense of their Eastern origins (28).
[15] A full list of books featuring in *Doctor Who* 1963-2013 can be found in Scott and Wright (314-17).